

The NEWEST L-W Model 224-A  
**PHOTO-OPTICAL  
DATA ANALYZER**

*Completely automatic FLICKER-FREE projection  
with an unequalled degree of TOTAL CONTROL!*



**A NEW CONCEPT in 16mm film projection**



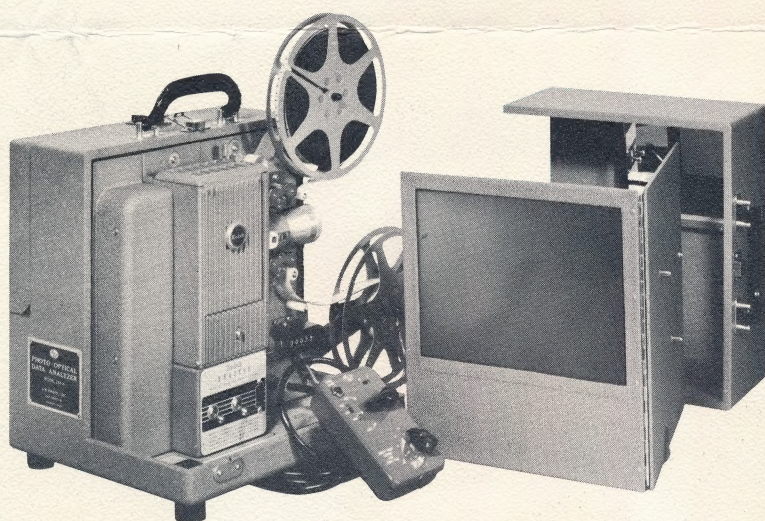
## DESCRIPTION – Model 224-A PHOTO OPTICAL DATA ANALYZER

The L-W Model 224-A brings a new dimension to the analysis of 16mm motion pictures for a wide variety of applications. Utilizing new electro/optical principles, the 224-A permits the gathering of data from films that has never before been available.

Due to the **complete** elimination of flicker, the viewer not only sees more, but eye

strain, fatigue and tension are eliminated. The ability to project and analyze motion picture film with complete lack of flicker, regardless of projection speeds, gives the viewer the ability to see events that previously have been imperceptible due to distracting flicker.

### Model 224-A



Daylight projection viewer, an integral part of the carrying case, provides bright viewing at desk. Special front-surface mirror is combined with a black translucent screen.

### REMOTE CONTROL



## FEATURES – Model 224-A

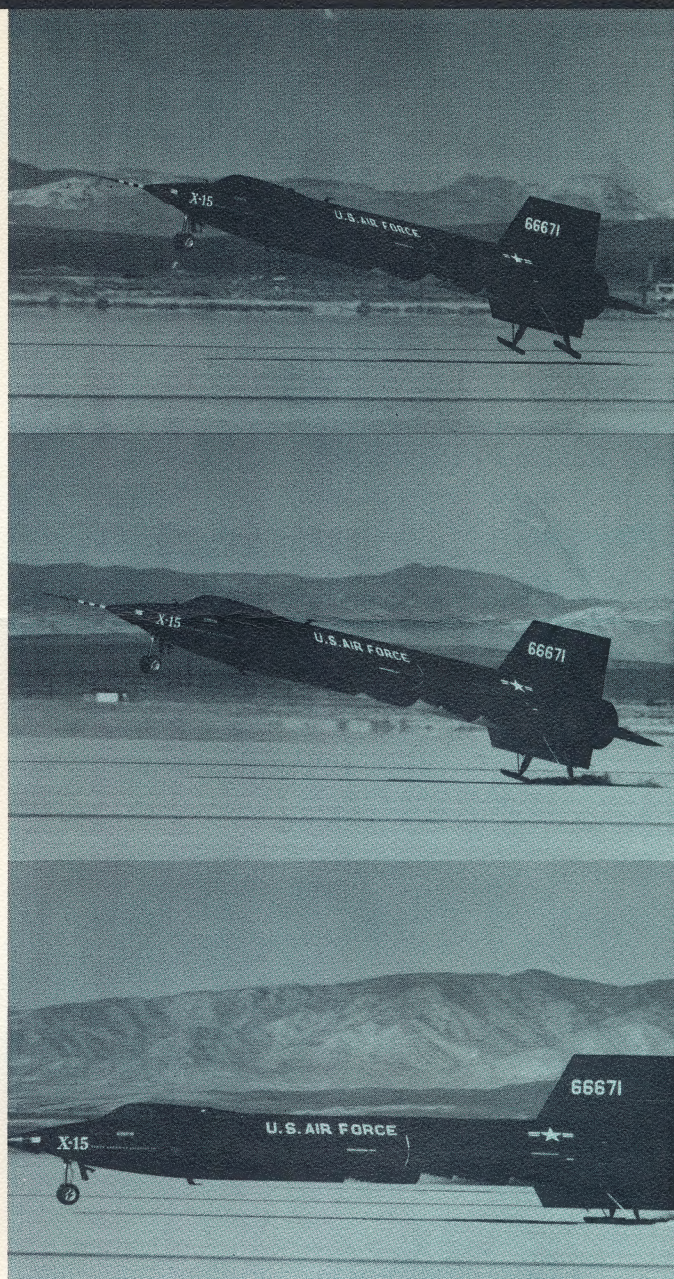
- ★ Complete **flicker-free** projection at speeds of 1-2-4-6-8-12-16 and 24 frames-per-second, forward and reverse.
- Built-in intervalometer provides selected speeds.
- ★ Instantaneous STOP while projecting at any speed.
- Brilliant picture with absolutely **no loss of brightness**, no film damage and no change of color in STILL mode.
- ★ Instant change of direction at all speeds with no danger of damage to film.
- ★ Positive single-frame indexing precludes projector stopping with shutter closed.
- Digital frame counter adds and subtracts.
- 400 ft. and 2000 ft. film capacity.
- ★ Daylight projection viewing screen built into carrying case.

★ L-W Exclusive



## APPLICATIONS

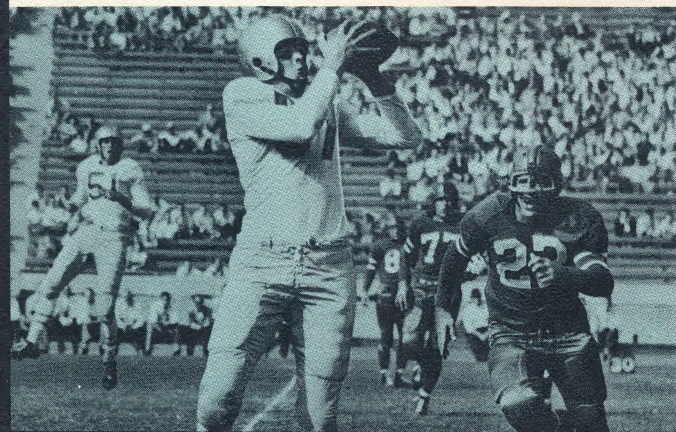
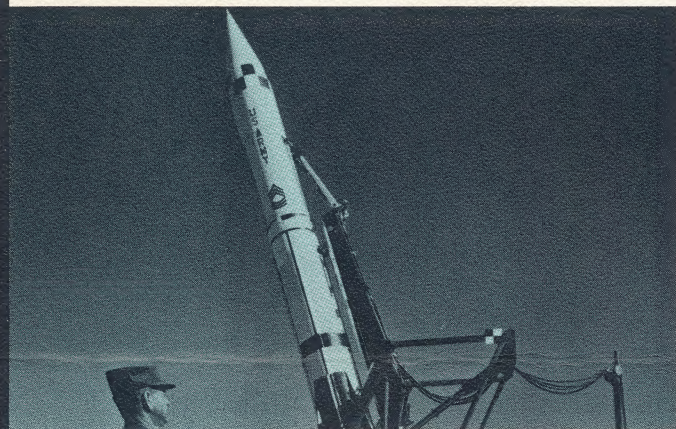
The 224-A Photo-Optical Data Analyzer was designed for the most critical analytical work. It is an extremely useful tool for those persons viewing "normal" 16mm motion pictures, single or double perforation, in black-and-white or in color. It enables the viewer to obtain a much greater degree of information than is possible with any other type of 16mm motion picture projector, whether projecting film shot at one-frame-per-hour, or at 25,000 frames-per-second. The 224-A is being used in a wide variety of motion picture analysis, including tracking, radarscope recording, reconnaissance, flight test, time-motion, memo motion, presentations, teaching, sports, and training.



If you would like to know more about the 224-A, and how it can add additional information value to **any** 16mm film, we would be happy to arrange for a demonstration without any obligation. Phone, write or wire.



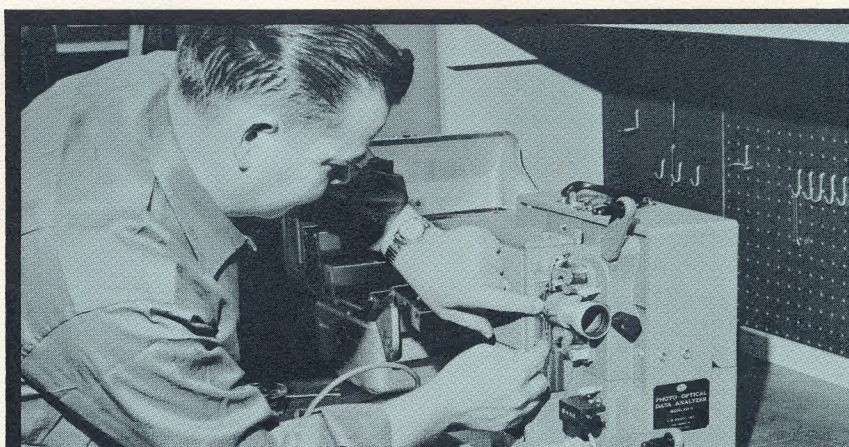
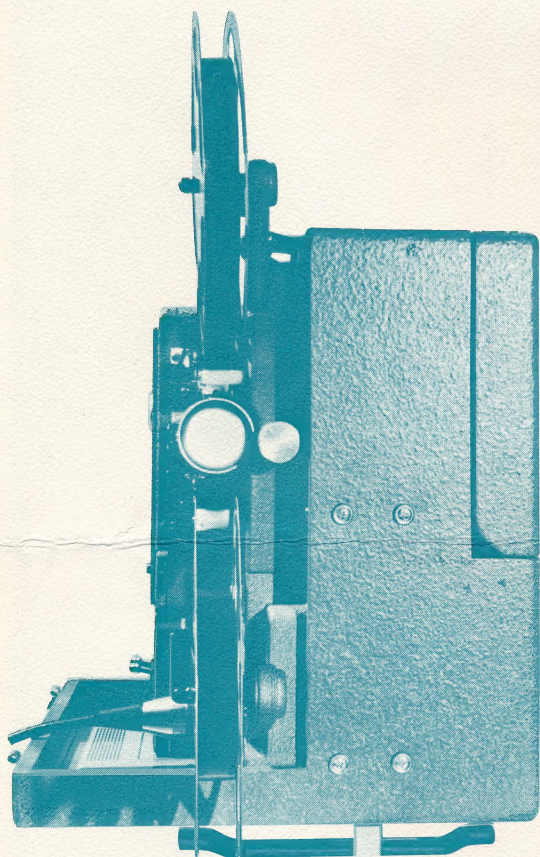
Model 224-AV-126TR provides all the capabilities of the 224-A, *plus* heavy duty 2000 ft. film capacity and *sound projection*. Model 224-AV-126TR-TV is a special version of the 224-A designed for television broadcasting.



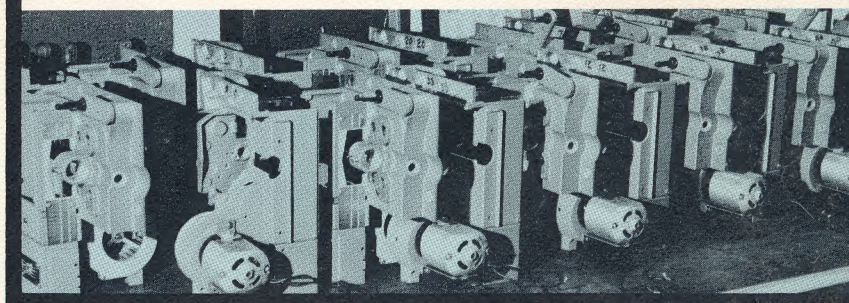


## SPECIFICATIONS – Model 224-A

- **FLICKER-FREE** projection of 16mm films at ALL speeds.
- **VARIABLE SPEED** projection at 1-24 fps.
- Still picture projection without loss of light or damage to the film. Unlimited hold time.
- **FRAME-BY-FRAME** projection upon command by push-button control.
- **AUTOMATIC PROJECTION** at 1-2-4-6-8-12-16-24 fps.
- **INSTANTANEOUS CHANGE OF DIRECTION**, forward or reverse.
- **REMOTE CONTROL** of all operating speeds and directions.
- **PROJECTION LAMP**: 750-watt or 1000-watt pre-focus; burns base down.
- **FILM CAPACITY** to and including 400 feet.
- **COOLING SYSTEM**: constant speed motor-driven blower and heat filtering system prevents damage to film, even during prolonged single frame projection.
- **WEIGHT**: 27 pounds. Operates in its case; only the cover need be removed.
- **SIZE**: Length, 12 $\frac{1}{2}$ " ; Height, 14 $\frac{1}{2}$ " ; Width, 10 $\frac{3}{4}$ " .
- Simple straightforward film threading.
- Accepts normal film reels. No special preparation of film reels required.
- **POWER REQUIREMENT**: 105-125 volts, 60-cycle AC.
- **FAST** power film rewind.
- Film framing control.
- Elevating control mechanism.
- **PROJECTION LENS**: 2" f/1.6 coated, with field flattener. Other focal length lenses to order.
- **DAYLIGHT PROJECTION VIEWER**. Built in, permits watching projection of film at desk. Special front surface mirror is combined with a black translucent screen.
- **NORMAL PROJECTION**. 750-watt or 1000-watt lamp permits projection upon a screen under normal projection conditions.
- **CONVENIENT STORAGE CAPACITY**. Folding reel arms, hinged cord storage area, spare lamp storage, quick-acting elevating device, takeup reel storage and "in case" construction provides compactness and ease of use.
- **FRAME COUNTER**: 5-digit, adds and subtracts; reset to Zero.
- **ACCESSORIES** (optional): Wide aperture plate to permit viewing timing marks. Extension cords for remote control box.



L-W Photo, Inc., since its founding, has developed many specialized skills, and is an organization equipped with the most modern facilities, staffed with personnel of unusually high caliber. Whatever your needs, there is an L-W Projector, and the capability, to meet your requirements.



# L-W PHOTO, INC.

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October 5, 1966

Mr. T. Nelson, Systems Consultant  
Box 1546  
Poughkeepsie, New York 12603

Dear Mr. Nelson:

As requested by your recent card, enclosed is descriptive literature on our Model 224-A Photo-Optical Data Analyzer.

Professional net price of the 224-A, complete with built-in daylight viewing screen, remote control and frame counter is \$1325.00, F. O. B. Van Nuys, California. Our terms are  $\frac{1}{2}\%$  10 days, net 30 and delivery can be made in approximately 30 days from receipt of order.

I believe the enclosed literature is self-explanatory, but if you have any additional questions after looking it over, please do not hesitate to contact us.

Sincerely yours,

L-W PHOTO, INC.

P. M. Smith

PMS/dk  
Enclosure